

METHOD AND APPARATUS FOR IMPROVED HIGH-SPEED FEC ADAPTIVE EQUALIZATION

ABSTRACT OF THE DISCLOSURE

A method for performing adaptive equalization is presented comprising receiving a Forward Error Correction (FEC) encoded signal from a channel, filtering the received FEC encoded signal using a filter according to at least one adjustable filter coefficient to produce a filtered signal, evaluating the filtered signal to generate a signal error output, adjusting the at least one adjustable filter coefficient in response to the signal error output, performing FEC decode processing dependent on the filtered signal to generate an FEC output, and adjusting the at least one adjustable filter coefficient in response to the FEC output. In one embodiment, the signal error output relates to Mean Squared Error (MSE), and the FEC output relates to bit error rate. The at least one adjustable filter coefficient may be first adjusted in response to the signal error output until a specified condition is met, then adjusted in response to the FEC output.

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